REMARKS

Office action summary

As of the mailing of the office action of June 26, 2009 ("Office Action"), claims 40-62 were pending in the present application. Claims 40, 48, and 56-61 are presently amended. Claims 47, 55, and 62 are presently canceled. No claims are presently added. Thus, following entry of the present amendments, claims 40-46, 48-54, and 56-61 will be pending. Entry of the present amendment and further examination of the present application in view of the following remarks are hereby requested.

The following objection and rejections were made in the Office Action:

- The specification was objected to because it contained embedded hyperlinks and/or browser-executable code.
- Claims 56-62 were rejected under 35 USC § 101 as being directed to non-statutory subject matter.
- Claims 40-41, 43-45, 47-49, 51-53, 55-57, and 59-62 were rejected under 35 USC § 103(a) as being unpatentable over Klear et al, WO 01/03040 ("Klear"), in view of Devarics, US Patent 6,553,240 ("Devarics"), and further in view of Hinds et al, US Patent 7,092,119 ("Hinds").
- Claims 42, 46, 50, 54, and 58 were rejected under 35 USC § 103(a) as being unpatentable over Klear, in view of Devarics and Hinds, and further in view of Fidler, US Patent 6,725,051 ("Fidler").

The amendments, objection, and rejections are discussed below. The examiner is respectfully urged to reconsider the application and withdraw the objection and the rejections. Should the examiner have any questions or concerns that might be efficiently resolved by way of a telephonic interview, the examiner is invited to call applicants' undersigned attorney, Jon M. Isaacson, at **206-332-1102**.

Telephonic interview

On September 2, 2009, applicants' undersigned attorney and Examiner Bruckart conducted a telephonic interview. Applicants' undersigned attorney would like to thank the examiner for granting the interview. During the interview, the objection to the specification,

the rejection under 35 USC § 101, and the rejections under 35 USC § 103(a) were discussed. The examiner agreed that the proposed amendments to the specification would overcome the objection to the specification, that the proposed amendment to claims 56-61 could, in light of the remarks below, overcome the rejection under 35 USC § 101. The examiner also agreed that the proposed amendment to claims 40, 48, and 56 appear to overcome the cited art of record. Any further substance of the interview is incorporated into the remarks below.

Objection to the specification

The specification stands objected to because it contained embedded hyperlinks and/or browser-executable code. Applicants note the requirement in MPEP § 608.01(VII) that the specification may not contain any text which may cause the PTO's website to display the text as an active link. Applicants presently amend the specification in those locations where the examiner identified the text as browser-executable code. Accordingly, applicants respectfully request withdrawal of the objection to the specification.

Claim amendments

Without conceding the propriety of the rejections made in the Office Action, applicants presently amend claims 40, 48, and 56-61. No new matter is added. The present amendment include generally two different grounds of amendments. First, claims 56-61 are presently amended to recite a "*tangible* computer readable medium." (Emphasis added) Second, claims 40, 48, and 56 are presently amended to incorporate subject matter similar to the subject matter recited by claims 47, 55, and 62, respectively. However, in an attempt to clarify the subject matter previously recited by claims 47, 55, and 62, the present amendments to claims 40, 48, and 56 differ somewhat from the subject matter previously recited by claims 47, 55, and 62. The patentability of the claims, in light of the present amendments, is discussed below.

Rejections under 35 USC § 101

Claims 56-62 were rejected under 35 USC § 101 as being directed to non-statutory subject matter. Specifically, the examiner interprets the term "computer readable medium" broadly, in accordance with paragraph 0076 of applicants' specification, to include non-

statutory subject matter such as carrier waves and signals. (Office Action, page 3.)

Applicants presently amend claims 56-61 such that they recite a "*tangible* computer readable

medium." (Emphasis added.) Some examples of a tangible computer readable medium

described in applicants' specification include a floppy disk, a flexible disk, hard disk,

magnetic tape, a CDROM, a punch card, paper tape, a RAM, a PROM, and EPROM, a

FLASH-EPROM. (Specification, paragraph 0076, as published.) Applicants respectfully

submit that a tangible computer readable medium cannot be reasonably interpreted as

encompassing carrier waves or signals. Therefore, applicants submit that claims 56-61 are

directed to statutory subject matter, and applicants respectfully request withdrawal of the

rejection of claims 56-61 under 35 USC § 101.

Rejections under 35 USC § 103(a)

     Claim 40 stands rejected under 35 USC § 103(a) as being unpatentable over Klear in

view of Devarics, and further in view of Hinds. Insofar as this ground of rejection pertains to

claim 40 as amended, applicants traverse same and hereby request reconsideration thereof.

As presently amended, claim 40 recites transmitting data for printout to a print server where

the data comprises a digital image and where the print server is configured to modify the data

based on characteristics of the specific printer by utilizing an adaptive halftone method.

Claim 40 further recites that:

> the adaptive halftone method comprises performing the following for
> each pixel in the plurality of pixels:
>
> > determining an input value of the pixel;
> >
> > determining a filtered value of the pixel based on a filter of the
> > digital image;
> >
> > obtaining a difference between the input value and the filtered
> > value, the difference represented by a difference value;
> >
> > generating the output value for the pixel based on a relationship
> > of the difference value to a threshold value, the threshold value
> > based on a difference value and a filtered value of another pixel
> > from the plurality of pixels.

In the Office Action, the examiner recognizes that the neither Klear in view of Devarics fails

to teach or suggest receiving information about the specific printer or that a print server

modifies data based on characteristics of the specific printer by utilizing an adaptive halftone

method. (Office Action, page 4.) The examiner then cites, as teaching the adaptive halftone

method previously recited by claim 47, to the following portion of Hinds:

> Many images are stored as variants of red, green, and blue, i.e., RGB system. However, printers use the colors cyan, magenta, yellow, and black to print, i.e. CMYK. When printing an image in an RGB format, such as an image displayed on the monitor, the RGB image is first transformed to a device dependent CMYK color space that corresponds to the RGB space. However, different printers produce varying output given the same CMYK input color space. The ability of a printer to reproduce an input image may be affected by many printing variables, such as the model of the printer, the age of the printer, the paper, toner, and environmental variables, such as temperature and pressure. All these variables affect how a printer produces an image from the CMYK input color space.

> To account for variables, a printer is calibrated. Calibration occurs by having the subject printer print patches of colors having known color values. A device referred to as a densitometer than measures the printed color values. The printed color values are than compared to the actual value of the colors maintained for the patches. Mathematical interpolation is used to generate a calibration curve which relates the actual printer measured output to the input patch of colors. This calibration curve provides a mapping from input color values, in a device independent CMYK space, to printer CMYK values that will produce the desired colors. Thus, the calibration curve maps the target or colors of the actual gray scale image to the printer, device dependent, CMYK color space. After the calibration curve is applied to adjust the input color or grayscale values, a halftone and dithering algorithms are applied to convert the calibrated gray scale image into a bi-level matrix where each pixel has only one of two values, or for a contone printer one of only a few values.

(Hinds, col. 1 line 41 – col. 2 line 6.) The first paragraph of this portion of Hinds discusses

transforming RGB image values into CMYK image values, and recognizes that physical and

environmental print variables can affect the actual color of a printout. The second paragraph

of this portion of Hinds discusses scanning a printout to determine a difference between the

printout color and the CMYK image values to define a calibration curve for mapping input

CMYK image values to the actual color that is outputting by the specific printer.

In contrast to the teachings of Hinds to compare CMYK image values to actual

printouts, claim 40 recites obtaining a difference value for each pixel, where the difference

value is the difference between the input value of the pixel and a filtered value of the pixel.

Furthermore, claim 40 recites that the output value of the pixel is based on a relationship of the difference value to a threshold value, where the threshold value is based on a filtered value and a difference value of another pixel from the plurality of pixels. Applicants can discern no teaching or suggestion in Hinds of a threshold value that is based on any value of another pixel.

Applicants can discern no teaching or suggestion in Klear or Devarics which overcomes the deficiencies of Hinds described above. Therefore, applicants respectfully submit that claim 40 is patentably defined over the cited art. Accordingly, applicants request withdrawal of the rejection of claim 40 under 35 USC § 103(a).

Independent **claims 48 and 56** are presently amended such that they contain recitations similar to those recitations of claim 40 discussed above. For at least the reasons discussed above regarding the patentability of claim 40, applicants submit that claims 48 and 56 are patentably defined over the cited art. Accordingly, applicants respectfully request withdrawal of the rejection of claims 48 and 56 under 35 USC § 103(a).

Claims 41-46, 49-54, and 57-61 depend, directly or indirectly, from claims 40, 48, and 56, respectively. Inasmuch as claims 41-46, 49-54, and 57-61 depend from independent claims which are patentably defined over the cited art, applicants submit that claims 41-46, 49-54, and 57-61 are patentably defined over the cited art for the reasons articulated above. Accordingly, applicants respectfully request withdrawal of the rejection of claims 41-46, 49-54, and 57-61 under 35 USC § 103(a).

Conclusion

Applicants believe that the present remarks are responsive to each of the points raised by the examiner in the Office Action, and submit that claims 40-46, 48-54, and 56-61 of the application are in condition for allowance. Favorable consideration and passage to issue of the application at the examiner's earliest convenience is earnestly solicited.

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